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Topics Programs Newsroom Blog Contact Us

Browse By Audience | A-Z Index |

You are Here: Home / Information about Hydrologic Units and the Watershed Boundary Dataset

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Information about Hydrologic Units and the Watershed Boundary Dataset

Facts History **FGDC** Compliant Metadata Recommended Data Citation Stewardship Web Services (DOC, 108KB)

What is WBD?

Watershed boundaries define the aerial extent of surface water drainage to a point. The intent of defining hydrologic units (HU) for the Watershed Boundary Dataset is to establish a base-line drainage boundary framework, accounting for all land and surface areas. The selection and delineation of hydrologic boundaries are determined solely upon science-based hydrologic principles, not favoring any administrative or special projects nor particular program or agency. At a minimum, they are being delineated and georeferenced to the USGS 1:24,000 scale topographic base map meeting National Map Accuracy Standards (NMAS). A hydrologic unit has a single flow outlet except in coastal or lakefront areas. As stated by the Federal Standard for Delineation of Hydrologic Unit Boundaries,

"A hydrologic unit is a drainage area delineated to nest in a multi-level, hierarchical drainage system. Its boundaries are defined by hydrographic and topographic criteria that delineate an area of land upstream from a specific point on a river, stream or similar surface waters. A hydrologic unit can accept surface water directly from upstream drainage areas, and indirectly from associated surface areas such as remnant, noncontributing, and diversions to form a drainage area with single or multiple outlet points. Hydrologic units are only synonymous with classic watersheds when their boundaries include all the source area contributing surface water to a single defined outlet point."

The Watershed Boundary Dataset is being developed under the leadership of the Subcommittee on Spatial Water Data 🗗 , which is part of the Advisory Committee on Water Information 🗗 (ACWI) and the Federal Geographic Data Committee 🗗 (FGDC). The USDA Natural Resources Conservation Service (NRCS), along with many other federal agencies and national associations, have representatives on the Subcommittee on Spatial Water Data.

As watershed boundary geographic information systems (GIS) coverages are completed, statewide and national data layers will be made available via the Geospatial Data Gateway to everyone, including federal, state, local government agencies, researchers, private companies, utilities, environmental groups, and concerned citizens. The database will assist in planning and describing water use and related land use activities.

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